and ears are entirely covered with hair, particularly thick on the nose. Her son, Moung Phoset, is more hairy on the face and ears than his mother—probably her locks are somewhat thinned by age—his forehead is densely clothed with hair, which, when combed over his face, entirely hides his features, the hair being 12½ inches in length; he parts it over the eyebrows and passes it behind his ears; it is also very long on the nose, and being parted in the middle and falling over the cheeks gives his face a most remarkable resemblance to that of a Skye terrier. The suggestion was so strong on my mind that I could scarcely divest myself of the canine idea.

The whole of his body is clothed with soft hair some inches in length, but I am informed that he has usually had this cut from time to time, so that its natural length is not apparent. The hair of Moung Phoset and of his mother Mahphoon is very soft and wavy, of a brown colour, and utterly unlike the coarse black hair of the ordinary Burman.

Capt. Paperno, who obtained them, and has been fifteen years in Burmah, informs me that the dentition of all these hairy people has been imperfect, whilst their less hairy brethren and sisters have had perfect teeth.

I have examined a cast of Moung Phoset's mouth. In the upper jaw he has but two canines and two large incisors, in the lower jaw two canines and four small incisors; the premolar and molar teeth are quite absent.

A nephew of Mahphoon, who is exhibited with them, has the appearance of an ordinary Burman only.

I believe that it is owing to the enterprise of Mr. Farini that we are enabled to see this singular family in London.

They are both far more hairy than Krao, who was exhibited in London some time since, and is now at Paris in good health; she was obtained from a district east of Burmah, and north of Siam; the features of the Burman family are so obscured by hair that I could not ascertain whether there was any resemblance to those of Krao, nor even whether they were Mongoloid.

Moung Phoset has been well educated, writes fluently in the Burman character and language, and possesses considerable power in the delineation of objects; like many Burmans he is tattooed from below the waist to above the knees.

I have seen a photograph of a brother of Mahphoon now dead; he was quite as hairy as his sister, but the peculiarity did not, I understand, extend to the whole of the family. J. JENNER WEIR

Chirbury, Beckenham, Kent

NOTES

PREPARATIONS are being made by Parisian men of science for the celebration of the 100th anniversary of the birth of M. Chevreul, on August 31 next.

A REGULATION as old as the French Academy of Sciences has just been broken through in Paris. Women have hitherto been excluded from the sittings of the Academy, but at the meeting of the 28th ult. the interdiction was raised in favour of Mdlle. Sophie Kowlewska, Professor of Mathematics at the University of Stockholm, and daughter of the eminent palæontologist. Admiral Jurien de la Gravière, who presided, welcomed her in graceful terms, and said that her presence should be a cause of pride and pleasure, not only to the mathematicians present, but to the whole Academy. As she entered, the whole of the members rose to salute her. She took her place between Gen. Faye and M. Chevreul.

ACCORDING to official decree, the Tokio University and the Imperial College of Engineering having been amalgamated into the Imperial University of Japan, they now cease to exist. The new University comprises five colleges or sections: (1) Law; (2) Medicine; (3) Engineering; (4) Literature; (5) Science. Each of these, as well as the whole institution, is placed under a Japanese director. The director of the Science College is Prof. Dairoku Kikuchi, a Cambridge Wrangler, and the same gentleman is acting for the present as head of the Engineering College also. The large and splendid buildings erected for the Engineering College—the finest pile of European edifices in Japan—will, it is said, be used in future as a school for the children of nobles.

HERR FENNEMA, a mining engineer at Buitenzorg, in Java, has made some observations on the recent volcanic eruptions in that island which are of interest as setting at rest a matter on which some doubt has existed. On the authority of Junghuhn, the general belief has been that in historic times all the volcanoes of Java (and of Sumatra it may be added) had thrown out solid matter only, and never those streams of lava which are so characteristic of most eruptions. But a careful examination of Smeru and Lemongau during the catastrophe of April last year shows that this notion must be abandoned as incorrect. The former is not only the highest but also the steepest in Java. From 700 to 1400 metres the slope is about 6°, up to 2100 it is 20°, and from 2100 to 3671 metres it is more than 30°. For a considerable way from the summit the striking cone consists wholly of the detritus thrown out regularly by the almost uninterrupted activity of the crater. Up to April 1885 the existence of torrents of lava was unknown. On the 12th-13th of that month a stream appeared on the south-eastern side, and forced the residents on the plantations lower down to fly. The stream increased for several days, until it reached a height on the mountain-side of about 2100 metres from the level of the sea. The loss of life was due to the avalanche of stones sent down the steep sides of the mountain by the stream. Similarly, at the same time, Lemongau threw out a lava stream, but there was a curious difference between this and the one issuing from Smeru—the latter was andesitic in its character, while the former was basaltic.

WE have received from Mr. Henry Farrar, 6, Hanway Street, W., photographs, seven in number, selected from a very extensive collection taken by a native of India, Lala Deen Diyal. One consists of the whole view of the rapids of Chichai waterfall, near Reira, which are 400 feet deep; another, a river view at Indore. The photographs themselves are exquisite; in looking at some of them one might imagine one's self in the tropics surrounded by the wonderful vegetation of that region. The tone of them is very fine, especially in the one "Channel below the Keuli waterfall, near Reira," the velvety appearance of the vegetation on the hillsides is in strong contrast with the sharp and clear detail of the white and waterworn stones in the river bed. To the various lovers of nature as well as students of art and archæology a possibility of getting quite perfect photographs of the natural and artistic wealth of India at a low price should be very welcome.

IT is stated that the explorations for coal conducted by Dr. Warth in the Salt Range in the Punjab have proved so satisfactory that the Government is now arranging for the practical working of the seams. Dr. Warth estimates that over one million tons are underlying the plateau at Dundote. The coal is not of the first quality. It contains iron pyrites and is very friable, but it is believed that it will be very useful for the North-Western railways.

WE have received several communications relating to the letter signed "P." in NATURE for May 27, p. 76, on "Male Animals and their Progeny." Mr. Arthur Nicols has noticed several times a common cock marshalling a brood of chicks,

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picking up food for them, calling them together on the approach of danger, and even "brooding" them at night. A case was communicated to him a few years since by Dr. James Gale, in which a turkey cock incubated six fowl's eggs during the whole period, successfully producing three chickens, and continuing to treat them with all the care of a hen. The hen turkey with which he had been mated was unfortunate in her brood, and this circumstance appears to have impelled him to take possession of the fowl's eggs. Besides the fact that in a considerable number of species the male not only takes his turn at incubation, but continues, equally with the female, to feed the young after they have left the nest, we have the case of the male emu, who performs the task of incubation alone. The male ostrich, too, as observed in a semi-domestic state, undertakes a large, and sometimes it would seem the entire, share of nidification. When the pair of Apterix in the Zoological Gardens nested, the male alone sat assiduously during fifteen weeks on the two eggs, which, however, proved infertile. A correspondent from Melksham also records a case in which a bantam cock brought up a brood of chickens, the mother having died when they were two days old. Mr. Hyde Clarke quotes instances of similar care bestowed by male dogs and cats in Turkey on the young.

THE curious case of the emu is described in a letter from Mr. Alfred Bennett, who had an opportunity of watching the habits of this bird, which was, during several seasons, successfully bred by his father in Surrey. The hen bird, says Mr. Bennett, begins to lay about the end of October or beginning of November, and as each brood consists of twenty eggs or more, laid at intervals of two days, the process takes about six weeks. Before it is completed, the cock bird begins to sit. The eggs laid subsequently are deposited by the hen by the side of her mate, who puts out his foot and draws them under him. As soon as the eggs begin to hatch it is necessary to isolate the hen, as she fights furiously with her mate, and would to all appearance kill the chicks if she were allowed to get at them. The whole of the tending of the young is performed by the male bird.

AN opah, or king-fish (*Zeus luna*), which is an exceedingly rare fish, was recently captured off the Shetland Islands and brought to the Colonial and Indian Exhibition for inspection. The specimen, which is in perfect condition, measures about 5 feet in length, and weighs 160 pounds. The colours of the sides and back are dark green intermingled with gold and purple, while the irides are red. The opah seems to possess peculiar migratory propensities, being found at various parts, even in Eastern seas. The habits of this fish seem to be little known, but Mr. W. August Carter, of the Colonial and Indian Exhibition, states that, according to inquiries and investigations he has made, the opah varies its diet according to the locality it inhabits, and that when visiting the British Islands it feeds chiefly upon herrings and cuttlefish.

IN one of the Courts of the Colonial and Indian Exhibition is a very fine raven, presented by the Maclaine of Lochbuie. This bird, on account of its sagacity, creates much amusement and interest amongst visitors. On being fed it partakes of so much of the food as it requires, then hides the remainder in certain parts of its habitat beneath pieces of paper and other articles that happen to be about. As many as four hiding-places are made use of by the raven for storing its food, which it exhumes when desirous of feeding. It is a curious fact that the raven only resorts to such stratagems when being watched by the public, at other times this sagacious bird consumes its meals in their entirety at one time.

THE additions to the Zoological Society's Gardens during the past week include a Bonnet Monkey (*Macacus sinicus*) from India, presented by Mr. Albert Thorne; a Macaque Monkey (*Macacus cynomolgus*) from India, presented by Mr. S. R. Hicks; a Prairie Wolf (*Canis latrans* ♀) from Winnipeg, presented by Mr. Gerald F. Talbot; a Common Fox (*Canis vulpes*), British, presented by Mr. A. Browning Priestley; a Brown Bear (*Ursus arctos*) from Asia, presented by Capt. Asher Smith; a Stein-bok Antelope (*Neotragus tragulus*) from South Africa, presented by Mr. W. J. Robertson; two Violaceous Night Herons (*Nycticorax violaceus*) from South America, presented by Dr. A. Boon, F.R.C.S.; a Mona Monkey (*Cercopithecus mona*) from West Africa, a Grey Squirrel (*Sciurus cinereus*) from North America, a Greater White-crested Cockatoo (*Cacatua cristata*) from Moluccas, deposited; six —— Sousliks (*Spermophilus* ——), five American Flying Squirrels (*Sciuropterus volucella*) from North America, two Glass Snakes (*Pseudopus pallasi*) from Dalmatia, purchased; two Mule Deer (*Cariacus macrotis* ♀ ♀), a Yak (*Poephagus grunniens* ♀), four Long-fronted Gerbilles (*Gerbillus longifrons*), bred in the Gardens.

OUR ASTRONOMICAL COLUMN

METHOD OF CORRECTING FOR DIFFERENTIAL REFRACTION IN DECLINATION.—Mr. McNeill, of the College of New Jersey, Princeton, has published in the *Astronomische Nachrichten*, No. 2735, a method of correcting micrometer observations for refraction which was devised originally for the diagonal-square micrometer, but is applicable also to the ring micrometer and others of the same class. In this method the correction to the difference of declination is not determined separately, but the true difference is directly determined, the corrections being applied to the logarithms in the course of the computation. Mr. McNeill shows that if we apply the number given by

$$M\kappa(\tan^2 \zeta \sin^2 q + 1)$$

to the logarithm of the half chord traversed by the star, and the corresponding number deduced from

$$M\kappa(\tan^2 \zeta \cos^2 q + 1)$$

to the logarithm of the apparent distance, measured on a circle of declination, from the point of reference in the micrometer, the result obtained will be the true distance corrected for refraction. In the above expressions M is the modulus of the common system of logarithms, κ the constant of differential refraction, ζ the true zenith distance, and q the parallactic angle. It is then only necessary to tabulate the expression

$$M\kappa\left\{\tan^2 \zeta \cos^2(p - q) + 1\right\}$$

with arguments $p - q$ and ζ, adding subsidiary tables giving barometer and thermometer factors, in order to obtain the quantities required (by making p alternately $= 90°$ and $= 0°$) to correct the micrometer observations for differential refraction in declination. This Mr. McNeill has done, and his tables will doubtless be of much use to observers using the class of micrometer to which the method is applicable.

NEW MINOR PLANET.—A new minor planet, No. 259, was discovered by Prof. C. H. F. Peters, Clinton, New York, on June 28. Minor planet No. 253 has been named Mathilde.

ASTRONOMICAL PHENOMENA FOR THE WEEK 1886 JULY 11–17

(FOR the reckoning of time the civil day, commencing at Greenwich mean midnight, counting the hours on to 24, is here employed.)

At Greenwich on July 11

Sun rises, 3h. 58m.; souths, 12h. 5m. 12·6s.; sets, 20h. 12m.; decl. on meridian, 22° 6′ N.: Sidereal Time at Sunset, 15h. 30m.

Moon (three days after First Quarter) rises, 15h. 49m.; souths, 20h. 38m.; sets, 1h. 22m.*; decl. on meridian, 15° 14′ S.

Planet	Rises	Souths	Sets	Decl. on meridian
	h. m.	h. m.	h. m.	° ′
Mercury ...	... 6 17	... 13 51	... 21 25	... 17 0 N.
Venus ...	... 1 32	... 9 30	... 17 28	... 20 42 N.
Mars ...	... 11 8	... 17 2	... 22 56	... 1 59 S.
Jupiter...	... 10 31	... 16 42	... 22 53	... 1 22 N.
Saturn ..	... 3 30	... 11 39	... 19 48	... 22 25 N.

* Indicates that the setting is that of the following morning.

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